WHAT IS ENERGY

BIOMASS
Biomass is grasses, trees, garbage or yard waste - basically anything that is or was plant fiber - and it accounts for about three percent of the energy used in the U.S. today. Biomass absorbs its energy from the sun through photosynthesis and stores it as sugars and fibers. For thousands of years, biomass was the main source of energy for humans, as people burned wood to heat their homes and cook food.

GEOTHERMAL
Today, about four percent of the energy used in the United States comes from geothermal sources, mostly in the western states. Geothermal energy comes from heat within the earth, and is used to make electricity and provide heating.

COAL
Currently, the majority of the electric power in the United States comes from coal - one of our oldest, most abundant and cheapest fuel sources. Coal supplies nearly 25 percent of the nation's energy needs, mostly to produce electricity, but also to make steel, iron and bricks.

ELECTRICITY
About 35 percent of our nation's energy is used to generate electricity, and this figure is expected to rise in the future because it is an economical, efficient and convenient way to move energy. Electricity is a secondary energy source because it is produced from other forms of energy, such as coal, natural gas, hydropower, fuel cells or photovoltaic (PV) cells.

HYDROGEN
Although very little is used today, the federal government has set a goal to meet ten percent of our total energy demand from hydrogen by 2030. Hydrogen gas is the simplest element known to man; an atom of hydrogen has one proton and one electron, and when used as a fuel its only by-product is water.

HYDROPOWER
Hydropower is energy produced by moving water, providing the U.S. with about four percent of the energy we use. Since the colonial era, Americans have used water wheels to grind grain and run sawmills. Today, about 2,400 dams are harnessing the power of rivers in the U.S. by using gravity and turbines to generate electricity.

NATURAL GAS
About 24 percent of the energy consumed in the United States is produced from natural gas, a fossil fuel which most scientists believe formed millions of years ago from the remains of dead plants and animals. Today, just about everyone in the U.S. uses natural gas; most American homes and many schools and hospitals are heated by it.

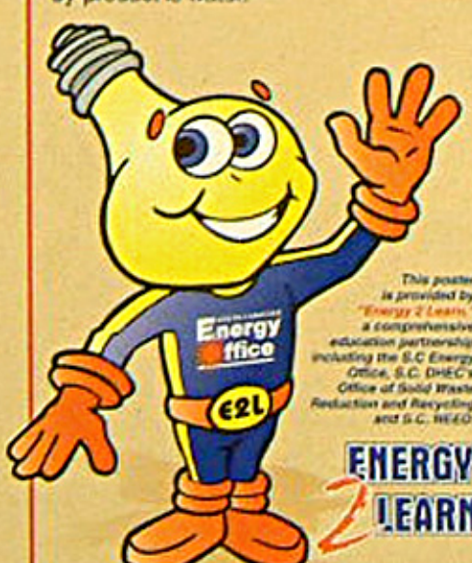
NUCLEAR ENERGY
Seven percent of all energy consumed in the United States comes from nuclear sources. It is all used to provide electricity. Nuclear energy is, in fact, second only to coal as a source of electric power in the U.S., and one out of every five homes and businesses in the country gets its electricity from a nuclear power plant.

PETROLEUM
Oil is the world's leading energy source, providing 40 percent of America's energy. It is a fossil fuel because it was formed from plants and animals. Our trucks and cars all use oil and petroleum products, and we use them to heat buildings and generate electricity. Petroleum products are also used to make plastics, medicines, paints, soaps and more.

PROPANE
Propane represents less than 1.7 percent of U.S. energy use. It comes from natural gas and petroleum wells. Propane is used to fuel appliances such as ranges, ovens, space heaters, furnaces and air conditioners. Millions of backyard cooks use propane in gas grills for barbequing.

SOLAR
In the United States today, less than one percent of energy consumption is produced from solar technology. Most of the solar energy we use for heat and light, however, cannot be measured. Today, many people have solar collectors on their roofs to capture sunlight and turn it into heat for hot water.

WIND
Less than one percent of America's energy is produced from wind. The average wind speed in the United States is 10 m.p.h., and generally an average wind speed of 14 m.p.h. is needed to convert wind energy into electricity. Good sites for windmills and turbines are the tops of smooth rounded hills, open plains, shorelines and mountain passes that funnel wind.



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ENERGY 2 LEARN

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